

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* SATORU TANGE

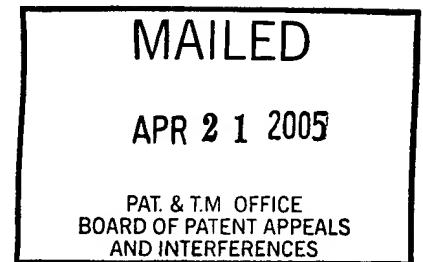
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Appeal No. 2005-0958  
Application No. 09/944,477

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ON BRIEF

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Before KIMLIN, PAK, and PAWLIKOWSKI, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1 through 5, which are all of the claims pending in the present application.

*APPEALED SUBJECT MATTER*

The subject matter on appeal is directed to a process for manufacturing a composite sheet comprising at least one first web capable of elastic stretch and contraction and at least one second web incapable of elastic stretch and contraction, with

"individual thermoplastic fibers of the second web . . . neither fused nor mechanically entangled tightly with each other between discrete areas where the first and second webs are joined together . . . ." Details of the appealed subject matter are recited in claim 1 which is reproduced below:

1. A process for manufacturing a composite sheet capable of elastic stretch and contract in one direction, said process comprising:

(a) continuously feeding, in the one direction, a first web capable of elastic stretch and contraction and having a top surface and a bottom surface;

(b) extending said first web in the one direction within a range that permits elastic stretch and contraction of the first web;

(c) continuously feeding a second web capable of inelastic extension and composed of thermoplastic fibers along the one direction;

(d) superimposing said second web on at least one surface of the extended first web and joining said second web to the first web in an intermittent manner along the one direction to provide a composite web;

(e) extending the composite web in the one direction within a range that permits elastic stretch and contraction of the first web; and

(f) allowing the extended composite web to react by an elastic contraction force of the first web to thereby obtain a composite sheet in which individual thermoplastic fibers of the second web are neither fused nor mechanically entangled tightly with each other between discrete areas where the first and second webs are joined together in step (d).

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#### *THE PRIOR ART*

The examiner relies on the following prior art references:

Sisson	4,107,364	Aug. 15, 1978
Ness	4,525,407	Jun. 25, 1985
Austin et al. (Austin)	5,543,206	Aug. 6, 1996

#### *THE REJECTION*

Claims 1 through 5 stand rejected under 35 U.S.C. § 103(a) as "being unpatentable over Ness in view of Sisson optionally further taken with Austin . . . ." See the Answer, page 4.

#### *OPINION*

We have carefully reviewed the claims, specification and applied prior art, including all of the arguments advanced by both the examiner and the appellant in support of their respective positions. This review has led us to conclude that the examiner's Section 103 rejection is not well founded. Accordingly, we reverse the examiner's rejection for essentially those reasons set forth in the Brief and Reply Brief. We add the following primarily for emphasis and completeness.

As evidence of obviousness of the claimed subject matter under Section 103, the examiner relies on the combined disclosures of Ness, Sisson and optionally Austin. Ness discloses various processes by which composite sheets useful for making, *inter alia*, garments or bandages can be produced. See

columns 1 and 2. Referring to one of the embodiments, Ness teaches (column 2, lines 17-27) that:

In another embodiment of the process of the present invention, a partially stretched elastic member is intermittently bonded to a substrate which, prior to stretching, is less easily extensible than the elastic member to form an elastic composite, and thereafter stretching selected areas of the composite to a selected degree. The composite may be incorporated into garments or bandages during manufacture and may be selectably [sic, selectively] stretched prior to wearing or while worn.<sup>1</sup>

The examiner acknowledges that Ness does not teach, *inter alia*, forming a composite sheet having "individual thermoplastic fibers of the second web . . . neither fused nor mechanically entangled tightly with each other between discrete areas where the first and second webs are joined together . . . , " after it is stretched and retracted. See the Answer, pages 9-12.

To remedy this and other deficiencies in Ness, the examiner relies on the disclosure of Sisson.<sup>2</sup> See the Answer in its entirety. The examiner alleges that Sisson teaches, *inter alia*,

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<sup>1</sup> The examiner has not referred to any specific columns and lines in Ness, which are said to teach retracting the composite after its stretching.

<sup>2</sup> Austin is not relied upon to show a composite sheet having "individual thermoplastic fibers of the second web . . . neither fused nor mechanically entangled tightly with each other between discrete areas where the first and second webs are joined together . . . . " See the Answer, pages 8-12

the above-mentioned feature missing in Ness. According to the examiner (Answer, pages 11-12), such feature can be inferred from Sisson's teachings at column 36, lines 28-62, which is provided below for convenience:

Accordingly, and with reference now to FIG. 19, there is shown and illustrated apparatus generally designated by reference character 30' substantially similar to the apparatus of FIG. 6 but for simultaneously extruding, drawing or drafting and forwarding three distinct streams of filaments to form a three layered unbonded web for bonding and stretching, as by use of the remainder of the apparatus 30 shown in FIG. 6. The apparatus 30' may, more particularly, produce a three layered cloth structure having a relatively elastomeric filament layer laminated between two relatively non-elastic filament layers . . . .

However, nowhere does the examiner explain how the formation of "a three layered cloth structure having a relatively elastomeric filament layer laminated between two relatively non-elastic filament layers" in Sisson would have resulted in or would have suggested a composite sheet having **"individual thermoplastic fibers of the second web . . . neither fused nor mechanically entangled tightly with each other** between discrete areas where the first and second webs are joined together . . . . [Emphasis added.]" As properly pointed out by the appellant (Brief, pages 14-15), Sisson illustrates individual thermoplastic fibers of the

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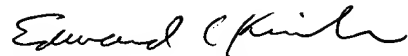
second web (24) which are fused together at discrete areas (26) where the first and second webs (22 and 24) are joined (Figures 1-3) and teaches individual thermoplastic fibers of the webs which are being bonded in a manner such that, upon stretching the cloth, they are "looped, bulked and bunched between the bond points" (column 8, lines 26-61). Thus, we concur with the appellant that even if the teachings of the applied prior art references are combined in the manner suggested by the examiner, such combination would not result in the claimed process. Accordingly, on this record, we are constrained to reverse the examiner's Section 103 rejection.

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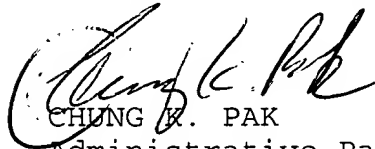
CONCLUSION

In view of the forgoing, the decision of the examiner is reversed.

REVERSED

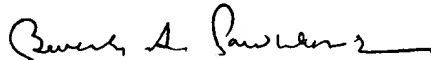


EDWARD C. KIMLIN )  
Administrative Patent Judge )



CHUNG W. PAK )  
Administrative Patent Judge )

BOARD OF PATENT  
APPEALS AND  
INTERFERENCES



BEVERLY A. PAWLIKOWSKI )  
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